



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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September 29, 2015

Mr. Dana Pelletier, General Manager
Newark America
100 Newark Way
Fitchburg, Massachusetts 01420

RE: Fitchburg
Transmittal No.: X266063
Application No.: CE-15-014
Class: OP
FMF No.: 343837
AIR QUALITY PLAN APPROVAL

Dear Mr. Pelletier:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Administrative Amendment Application ("Application") listed above. This Application concerns the proposed revisions and updates to Plan Approval Transmittal Number W111477 at your manufacturing facility located at 100 Newark Way in Fitchburg, Massachusetts, Massachusetts ("Facility").

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control" regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-O, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

This Plan Approval, Transmittal Number 266063 replaces in its entirety Plan Approval Transmittal Number W111477 dated August 22, 2008. Plan Approval Transmittal Number X264820, issued on May 11, 2015 is still in effect.

1. DESCRIPTION OF FACILITY AND APPLICATION

The Newark Group Inc., doing business as Newark America (the "Permittee") operates a paper recycling facility currently constructed at 85 Princeton Road, Fitchburg, Massachusetts. ("The Facility"). The Facility consists of oil and gas fired boilers, a single paper making machine and auxiliary equipment to recycle residential mixed and baled newspapers, magazines and old corrugated containers into a recycled board product. The product produced is used in a variety of industrial and commercial applications such as corrugated containers and spiral wound tubes. The air pollution control Plan Approval for the Facility TR # W022255 was approved in three parts. Part I and II approved the boilers and associated combustion emissions. Part III approved the process equipment and associated emissions.

The operation of the waste paper recycling equipment results in emissions to the ambient air of Particulate Matter (PM), Volatile Organic Compounds (VOC), Hazardous Air Pollutants (HAP) and Odor.

- A. The fossil fuel utilization portion of the Facility was approved in two Parts. Part I, issued on November 9, 2001, approved installation of a new Nebraska boiler ("Boiler #2") with flue gas recirculation, a low NOx burner, restrictions on the existing Babcock and Wilcox boiler ("Boiler #1") to standby status and initiation of upgrades to the associated natural gas line supplying the Facility. Part II, Phases 1, 2 & 3, issued on January 4, 2002, approved the replacement of the original low NOx burner on Boiler #2 with an ultra low NOx burner, lowered allowable emission rates, changed fuel of use restrictions, and initiated an optimization program for emissions. Phase 3 further lowered annual emission rates and changed restrictions on fuel of use to reflect optimized operations of Boiler #2 with the ultra low NOx burner and reliance on gas as the primary fuel.
- B. Part III – Recycling Plan Approval Tr. No. W0222555, issued on January 28, 2002, allowed installation and operation of process equipment and established process equipment operating standards and associated emission limits. Plan Approval Tr. No. W111477, issued on August 22, 2008, replaced Plan Approval Tr. No. W0222555, and was later amended on June 30, 2011.
- C. On March 24, 2008, MassDEP issued air pollution control Plan Approval Tr. No. W200007 to replace Plan Approval Part II Tr. No. W022255. The March 24, 2008 Plan Approval did not authorize any changes in equipment. It allowed for more fuel of use flexibility, clarified how emission limits are calculated, and updated applicable requirements for the primary Nebraska high-pressure water tube boiler at the Facility. On April 30, 2008, MassDEP issued Administrative Amendment W200007-A to Plan Approval Tr. No. W200007 to correct some typographical errors and provide additional clarification for record keeping and emission testing.

- D. In response to the Administrative Amendment Application Tr. No. X266063 dated July 1, 2015, MassDEP has made the following changes from Plan Approval Tr. No. W111477:
1. On February 17, 2015, the Permittee permanently decommissioned the Facility's graphic board paper machine, designated as Emission Unit 4 (EU 4) or Paper Machine #2. Any references to this EU have been deleted.
 2. As a result of this decommissioning, the potential facility-wide emissions of Hazardous Air Pollutants (HAP) has been decreased below major source thresholds. A revised HAP limit for individual and combined HAP is presented in Table 2.
 3. With the decommissioning of EU 4, this Plan Approval also reduces the emissions of particulate matter (PM) and volatile organic compounds (VOC) as well as well reducing the limit on the amount of Air Dried Tons Of Finished Product (ADTFP).
 4. This Plan Approval incorporates the approval given in MassDEP's letter of June 30, 2011, which allowed the Permittee to use the following selected process additives:
 - a) Passaic Brown Dye
 - b) Nalco 62501 Re-wet
 - c) Nalco DR 131 plus Re-wet
 - d) Nalco 7450 Size, and
 - e) Various starches.
 5. This Plan Approval also incorporates the approval given in MassDEP's letter of January 17, 2013, allowing the emission rate for acetic acid in dye additives is as specified by the additive manufacturer's documentation.
 6. The request to change the condition to keep the five roll-up doors closed "when not in use" to remaining closed "during production down times" has been made
 7. Lastly, this Plan Approval is written the new format for Plan Approvals and slight rewording of conditions have been made for clarity.

2. EMISSION UNIT IDENTIFICATION

Each Emission Unit ("EU") identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU	Description	Design Capacity	Pollution Control Device (PCD)
3	Paper Machine No. 1 ¹	502 ADTFP per Day	None

Table 1 Key:

EU = Emission Unit Number

PCD = Pollution Control Device

ADTFP = Air Dried Tons Finished Product

Table 1 Notes

1. EU 3 includes the paper making machine plus the paper waste recycling equipment and associated paper making equipment

3. **APPLICABLE REQUIREMENTS**

A. **OPERATIONAL, PRODUCTION and EMISSION LIMITS**

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Tables 2 and 2A:

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
3	1. Paper Products Production ≤ 15,550 ADTFP/ month ≤ 130,000 ADTFP/ year	PM10 ¹	≤ 1 TPM ≤ 5.1 TPY
		VOC ²	≤ 3.0 TPM ≤ 27.8 TPY
	2. VOC concentration of the following additives will be limited: dyes (45 wt%), on-line cleaners (10 wt%), biocides (5 wt%).	VOC (from additives only)	0.05 lb/ADTFP ≤ 0.4 TPM ≤ 5.6 TPY

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
3		HAP (single)	≤ 0.8 TPM ≤ 6.9 TPY
		Total HAP ²	≤ 2.5 TPM ≤ 23.2 TPY
		Total HAP (from additives only)	< 0.1 TPM ≤ 1.0 TPY
		Odor	No detectable odor off site.
		Visible Emissions	No smoke emissions from any process equipment vents.
		Opacity ³	$\leq 5\%$ at any time from any process equipment vents.

Table 2 Key:

ADTFP = Air Dried Tons Finished Product

EU = Emission Unit

HAP (single) = maximum single Hazardous Air
Pollutant

HAP (total) = total Hazardous Air Pollutants.

% = percent

\leq = less than or equal to

lb/ADTFP – pound per one Air Dried Ton Finished
Product

PM₁₀ = Particulate Matter less than or equal to 10
microns in diameter

VOC = Volatile Organic Compounds

TPM = tons per month

TPY = tons per consecutive 12-month period

wt = weight

Table 2A Notes

1. Total emissions include all process related emissions only
2. Total emissions include all process related emissions *and* additives
3. Opacity is exclusive of uncombined water

Table 2A Emission Factors and Tracking

Facility Emission Points	A	B	C	D	E	F	G	G
	Monthly Production Rate (ADTFP)	VOC Emission Factor (lb/ADTFP)	VOC Monthly Emissions (tons)	Single HAP Emission Factor (lb/ADTFP)	Total HAP Emission Factor (lb/ADTFP)	Single HAP Monthly Emissions (tons)	Total HAP Monthly Emissions (tons)	Total PM10 Emissions (tons)
Paper Machine	Actual	0.314	=A*B/2000	0.1	0.314	=A*D/2000	=A*E/2000	NA
Stock Prep ¹	Actual	0.017	=A*B/2000	0.0055	0.017	=A*D/2000	=A*E/2000	NA
Water Polishing ²	Actual	0.0065	=A*B/2000	0.002	0.0065	=A*D/2000	=A*E/2000	NA
Process Additives ³	Actual Additives	Actual VOC usage	=A*B/2000	Actual Single HAP usage	Actual Total HAP usage	=A*D/2000	=A*E/2000	NA
Total Monthly Emissions	Actual Total Production	NA	ΣC ≤ 3.0	NA	NA	ΣF ≤ 0.8 TPM	ΣG ≤ 2.5 TPM	= (A*0.078) / 2000 ⁵ ≤ 1 TPY
Rolling 12 month Emissions	NA	NA	≤ 27.8 ⁴	NA	NA	≤ 6.9 TPY ⁴	≤ 23.2 TPY ⁴	≤ 5.1 TPY ⁵

Table 2A Key

EU = Emission Unit Number	Σ = sum of
ADTFP = Air Dried Ton Finished Product	\leq = less than or equal to
lb/ADTFP – pound per one Air Dried Ton Finished Product	PM ₁₀ = Particulate Matter less than or equal to 10 microns in diameter
HAP (single) = maximum single Hazardous Air Pollutant	TPM = tons per month
HAP (total) = total Hazardous Air Pollutants	TPY = tons per consecutive 12-month period
NA = Not Applicable	VOC = Volatile Organic Compounds
lb = pound	

Table 2 Notes

- 1 Emission factor is in units of pounds per oven dried tons finished pulp (ODTP). “Oven dried” denotes no water remaining in paper.
- 2 Emission factor for water polishing is based on WATER9 results
- 3 All VOC and/or HAP added to the process are assumed to be emitted, except that acetic acid in dye additives is assumed to be emitted at the rate specified by the additive manufacturer (e.g. 1% for Passaic Brown LV Liquid or 0.014% for BASF Basazol Brown 43L). The Permittee may request permission to modify this assumption upon submission of appropriate information to MassDEP.
- 4 In the event subsequent VOC or HAP testing indicates a higher emission factor, the values for VOC or HAP emissions per ADTFP then the Permittee may request a modification to the allowable VOC or HAP emission rate upon submission of appropriate information to MassDEP
- 5 In the event subsequent PM testing yields a higher PM emission rate than 0.078 lb/ADTFP, then the Permittee may request a modification to the allowable PM emission rate upon submission of appropriate information to MassDEP

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3	
EU	Monitoring and Testing Requirements
3	1. The Permittee shall track the usage of all raw materials used in the Facility.
	2. Any equipment or emission monitoring systems that may have been required to be installed for the purpose of documenting compliance with this Plan Approval shall be installed, calibrated, maintained and operated by the Permittee in sufficient manner to ensure continuous and accurate operations at all times.
Facility-wide	3. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	4. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and Regulation 310 CMR 7.13.
	5. At least 30 days prior to emission testing, the Permittee shall submit to MassDEP for approval a stack emission pretest protocol.
	6. Within 45 days after emission testing, the Permittee shall submit to MassDEP a final stack emission test results report.

Table 3 Key:

EU = Emission Unit Number

Table 4	
EU	Record Keeping Requirements
3	1. The Permittee shall keep Operation and Production log books. These log books shall contain the following information: <ul style="list-style-type: none"> a) The name and amount of all VOC containing materials used in the Facility (per month) b) Name and amount of chemicals used per ADTFP of product produced (per day) c) Finished production material (ADTFP per month) d) Date and hours of operation of the recycling operation. (daily) e) Name of Company(s) delivering the raw material including as a minimum, date of delivery, amount of paper waste and truck ID number and company contact name and phone number.

Table 4	
EU	Record Keeping Requirements
	<p>2. The Permittee shall keep Complaint log books. These log books shall contain the following information:</p> <p>a) Odor complaints received (nature of complaint, date, time and source if known and action taken)</p> <p>b) Noise complaints received. (nature of complaint, date, time and source if known and action taken)</p>
3	3. The Permittee shall maintain on-site monthly records to verify that the Permittee does not exceed the emissions and restrictions in Table 2 and Table 2A.
	4. The Permittee shall track monthly and 12-month rolling period emissions using the approved emission factors in Table 2A.
	5. The Permittee shall maintain adequate records on site, which document the final production rate over a rolling 12-month period.
	6. The Permittee shall maintain an Environmental Logbook, or equivalent, which shall document all actions associated with environmental issues and overall emissions changes at the Facility. The Facility shall record information such as the results of federal, state, or local environmental inspections; and measures taken to maintain or lower overall emissions to the environment (air, odors, solid waste, etc.). This Environmental Logbook, or equivalent, shall be made available to MassDEP personnel upon request.
Facility-wide	7. The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15 th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping .
	8. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	9. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) approved herein on-site.
	10. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	11. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.

Table 4	
EU	Record Keeping Requirements
Facility-wide	12. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	13. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	14. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 4 Key:

ADTFP = Air Dried Ton of Finished Product
EU = Emission Unit Number
SOMP = Standard Operating and Maintenance Procedure

VOC = Volatile Organic Compounds
PCD = Pollution Control Device
USEPA = United States Environmental Protection Agency

Table 5	
EU	Reporting Requirements
Facility-wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. The Permittee shall notify the Central Regional Office of MassDEP, BAW Permit Chief by telephone: 508-767-2845, email: Roseanna.Stanley@state.ma.us, or fax : 508-792-7621, as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to the Permit Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall report every three years to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.

Table 5 Key:

EU = Emission Unit Number

4. **SPECIAL TERMS AND CONDITIONS**

- A. The Permittee is subject to, and shall comply with, the Special Terms and Conditions as contained in Table 6 below:

Table 6	
EU	Special Terms and Conditions
3	1. The Permittee may use the following process additives, subject to the VOC and HAP emissions limitations in this Plan Approval: a) Passaic Brown Dye b) Nalco 62501 Re-wet c) Nalco DR 131 plus Re-wet d) Nalco 7450 Size e) Various Starches
	2. MassDEP reserves the right to require the Permittee to take additional measures to reduce emissions, including the installation of pollution control devices to abate or prevent a condition of air pollution.
	3. The five roll-up doors used for access to the raw material receiving tipping floor shall remain closed during production down times to help prevent the release of fugitive particulate matter to the ambient air.
	4. All VOC containing materials including wastes and rags that may contain solvent shall be stored in covered containers or tanks.
	5. This Plan Approval, Tr. No. X266063 supersedes the Conditional/ Plan Approval, Tr. No. W111477 issued to the Permittee on August 22, 2008, in its entirety, with the exception that all plan application materials submitted as part of the Plan Approval Tr. No. W111477 become part of this Plan Approval, Tr. No. X266063.

Table 6 Key:

EU = Emission Unit Number
HAP = Hazardous Air Pollutants

VOC = Volatile Organic Compounds

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack

shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including, but not limited to, rain protection devices known as “shanty caps” and “egg beaters.”

- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU ¹	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
3 (Dryer Vent)	61	5	61	170
3 (Stock Prep Vent)	44	4	61	Ambient

Table 7 Key:

EU = Emission Unit Number

°F = Degree Fahrenheit

Table 7 Notes:

1. The primary vents utilized by EU3 are listed in Table 7. There are many other general vents in the paper machine area on the roof and outside wall as well as the stock prep building. There are also false ceiling vents, general vents and vacuum vents for Paper Machine No. 1 (including a 30-ft. high, 2.5-ft. diameter vacuum vent.) The water polishing building includes four general vents.

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.

- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions," which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact me by telephone at 508-767-2845, or in writing at the letterhead address.

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Roseanna E. Stanley
Permit Chief
Bureau of Air and Waste

Enclosure

ecc: Fitchburg Board of Health
MassDEP/Boston - Yi Tian
Daniel Fefer, Epsilon Associates, Inc.